

## (01) Silicon Germanium

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## (1) Silicon Germanium

### DETAILED PROGRAMME

Wednesday, 18-12-2013

#### Session I : 10.15 – 11.15

10.15 - 10.45 Invited Talk (1)	<u>Shunri Oda</u>	<b>ABS - 1653 - ICA</b> Si/Ge based Low-Dimensional Structures for Future Electronics
10.45 - 11.15 Invited Talk (2)	I.H. Chen, M.H. Kuo, and <u>Pei-Wen Li</u>	<b>ABS - Email - ICA</b> Designer Germanium Quantum-Dot Single Electron Transistors and Broadband Photodetectors

#### Session II : 11.45 – 13.15

11.45 - 12.15 Invited Talk (3)	<u>B.N. Dev</u>	<b>ABS - 1195 - ICA</b> Self-Organized Epitaxial Nanostructures on Silicon Surfaces
12.15 - 12.45 Invited Talk (4)	<u>K. Hamaya</u>	<b>ABS - Email - ICA</b> Spintronics on SiGe platform
12.45 - 13.00 Oral (1)	<u>Renu Sharma</u> , Anupriya Katiyar, Isha Yadav Shaveta, Mohd. Imran, Praveen Kumar, Ramjaipal, K.K.Jain, R.K.Bhan and P.Dutta	<b>ABS - 564 - ICA</b> A Novel Wafer-Level Packaging Technique using BCB for RF MEMS Devices
13.00 - 13.15 Oral (2)	<u>S. Chattopadhyay</u> and A. Karmakar	<b>ABS - 654 - ICA</b> Silicon/Germanium platform for high performance MOSFETs

#### Session III : 16.00 – 18.00

16.00 - 16.30 Invited Talk (5)	Manjula Sharma and <u>Milan K. Sanyal</u>	<b>ABS - Email - ICA</b> Synchrotron X-ray studies of Ge quantum huts formed at interfaces of Si-Ge superlattices
16.30 - 17.00 Invited Talk (6)	Hung-Tai Chang, Pei-Wen Li and <u>Sheng-Wei Lee</u>	<b>ABS - 1604 - ICA</b> High quality multifold Ge/Si/Ge composite quantum dots for thermoelectric Materials: Their formation mechanism and thermoelectric properties
17.00 - 17.30 Invited Talk (7)	J.K. Dash, A. Rath, T. Bagarti, R.R. Julari and <u>P.V. Satyam</u>	<b>ABS - 1655 - ICA</b> Self Assembled Graded-Si <sub>x</sub> Ge <sub>y</sub> Nano/Micro structures on High Index Silicon Surfaces
17.30 - 17.45 Oral (3)	<u>S.Yamada</u> , M.Kawano, K.Tanikawa, M.Miyao and K.Hamaya	<b>ABS - 895 - ICA</b> Epitaxial growth and electrical properties of Ge/Fe <sub>3</sub> Si/Si vertical structures
17.45 - 18.00 Oral (4)	Adithi U, Smitha Nair, <u>Vijayaraghavan</u> and Navakanta Bhatt	<b>ABS - 1088 - ICA</b> PECVD grown SiGe layers

**Thursday, 19-12-2013**

**Session IV : 10.15 – 11.15**

10.15 - 10.45 Invited Talk (8)	<u>Siddheswar Maikap</u> and Debanjan Jana	<b>ABS - Email - ICA</b> GeO <sub>x</sub> Based Nanoscale Resistive Switching Memories
10.45 - 11.15 Invited Talk (9)	<u>Tsutomu Tezuka</u> , Keji Ikeda, Yoshiki Kamata, Yuichi Kaminuta, Koji Usuda, Yoshihiko Moriyama, Mizuki Ono, Minoru Oda, Kiyoe Furuse, Etsuo Kurosawa	<b>ABS - 1582 - ICA</b> Ge-on-insulator MOSFETs for high-performance and 3D stacking applications

**Session V : 11.45 – 13.15**

11.45 - 12.15 Invited Talk (10)	<u>P.K. Basu</u> , Bratati Mukhopadhyay and Rikmantra Basu	<b>ABS - 1527 - ICA</b> Group IV Semiconductors and Their Alloys for Photonic Device Applications
12.15 - 12.30 Oral (5)	<u>R. Batabyal</u> , A.H.M. Abdul Wasey, G.P. Das and B.N. Dev	<b>ABS - 1098 - ICA</b> Negative Differential Resistance in Ultrathin Ag Films on Si(111) and Tunability of Properties in the Dimensional Crossover Regimes
12.30 - 12.45 Oral (6)	<u>Karanam Madhavi</u> , Habibuddin Shaik Mohan Kumar B.V. and Padmasuvarna R.	<b>ABS - 1198 - ICA</b> Fabrication of silicon nanowire arrays by silver assisted chemical Etching and their optical and wettability properties
12.45 - 13.00 Oral (7)	<u>R. Aluguri</u> , S. Manna, A. Katiyar, R. Bar and S.K. Ray	<b>ABS - 1209 - ICA</b> Light Emission Characteristics of Compressively Strained Ge Films Grown by Molecular Beam Epitaxy
13.00 - 13.15 Oral (8)	S. Manna, A. Katiyar, R. Aluguri, <u>R. Bar</u> and S.K. Ray	<b>ABS - 1210 - ICA</b> MBE Grown Self-assembled Ge Quantum Dots for Optoelectronic Devices

**Session VI : 16.00 – 18.00**

16.00 - 16.30 Invited Talk (11)	P.K. Basu, Brat <u>L.M. Kukreja</u> , A. Chaturvedi, A.P. Detty and M.P. Joshi	<b>ABS - Email - ICA</b> Anomalous optical transitions in photoluminescence from pulsed laser deposited ensembles of capped Silicon Nanoparticles
16.30 - 17.00 Invited Talk (12)	C.C. Wang, K.H. Chen, C.Y. Chien, M.H. Kuo, <u>Pei-Wen Li</u> and Tom George	<b>ABS - Email - ICA</b> The Curious Case of Germanium Quantum Dots: Anomalous Migration and Growth Behavior of Ge under Si oxidation
17.00 - 17.15 Oral (9)	<u>Debolina Das</u> , J.C. Mahato, Bhaskar Bisi, Nasrin Banu and B.N. Dev	<b>ABS - 1226 - ICA</b> Concurrent growth of nanowires and nanodots in self- organized FeSi <sub>2</sub> on Si(110)-16x2 surface
17.15 - 17.30 Oral (10)	<u>J.C. Mahato</u> , <u>Debolina Das</u> , Bhaskar Bisi and B.N.Dev	<b>ABS - 1237 - ICA</b> Tuning the Aspect Ratio of Silicide Nanowires on Si (110)

17.30 - 17.45 Oral (11)	<u>R.R. Julari</u> , Arnab Ghosh, Anjan Bhukta, A. Rath, and P.V. Satyam	<b>ABS - 1472 - ICA</b> Use of Germania to grow Silver Endotaxial structures on Silicon
17.45 - 18.00 Oral (12)	<u>Moumita Mukherjee</u>	<b>ABS - 1657 - ICA</b> Role of Ge in Improving Interface Roughness of 3C-SiC/Si Hetero-Epitaxy : A Novel Technique

**Poster Session :**  
**Wednesday, 18-12-2013, 14.00-15.30**

01 - Poster - 01	Vineet Kumar Singh, J. Nagaraju	Effect of Doping Parameters on Si Solar Cell Efficiency	<b>ABS - 73 - ICA</b>
01 - Poster - 02	Debajyoti Das and Praloy Mondal	Highly conducting boron-doped nc-Si:H films with high crystallinity and preferred (220) orientation	<b>ABS - 463 - ICA</b>
01 - Poster - 03	Basudeb Sain and Debajyoti Das	High rate growth of nc-Si/a-SiNx:H quantum dots thin films from inductively coupled plasma	<b>ABS - 463a - ICA</b>
01 - Poster - 04	Rajshekhar Bar, Santanu Manna, Apurba Laha, H. J. Osten, and Samit K Ray	Si <sub>1-x</sub> Ge <sub>x</sub> Nanocrystals Embedded in Epitaxial Gd <sub>2</sub> O <sub>3</sub> on p-Si (111) Grown by Molecular Beam Epitaxy for Nanocrystal Based Flash Memory Devices	<b>ABS - 630 - ICA</b>
01 - Poster - 05	S. Chatterjee and S. Chattopadhyay	Estimation of process-induced stress in SOS channel nano-scale MOSFETs with high-k gate dielectrics	<b>ABS - 654 - ICA</b>
01 - Poster - 06	A. Das, S. Chattopadhyay and G. K. Dalapati	The study of interface quality of high-k/epi-GaAs capacitor structures grown on Ge substrates for the application of next-generation MOSFETs	<b>ABS - 654 - ICA</b>
01 - Poster - 07	Subhrajit Mukherjee, K.Das, S.K.Ray	Influence of etching parameters on synthesis of Silicon Nanowires by Metal-Assisted Chemical Etching	<b>ABS - 839 - ICA</b>
01 - Poster - 08	M. Kawano, S. Yamada, M. Miyao, and K. Hamaya	Low-temperature growth of Ge layers on Co <sub>2</sub> FeSi/Ge(111)	<b>ABS - 894 - ICA</b>
01 - Poster - 09	I. Jyothi, V. Janardhanam, and C.J. Choi	Effect of oxygen plasma treatment on electrical and structural characteristics of Pt/n-Si Schottky diodes	<b>ABS - 1003 - ICA</b>
01 - Poster - 10	V. Janardhanam, I. Jyothi and Chel-Jong Choi	Fermi level pinning at Germanium Schottky interface and depinning of the Fermi level with selenium passivation	<b>ABS - 1005 - ICA</b>
01 - Poster - 11	S. Muta, M. Anisuzzaman, A.M.Hashim and T. Sadoh	Narrowing-Induced Orientation-Stabilization in Rapid-Melting Growth of Ge-on-Insulator	<b>ABS - 1035 - ICA</b>